

**FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6164
KEMIRA CHEMICALS, INC.**

*FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6164
KEMIRA CHEMICALS, INC.*

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6164. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the City of Washougal Publicly Owned Treatment Works (POTW). This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (Revised Code of Washington [RCW] 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 Washington Administrative Code [WAC]).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D—Response to Comments.

Table 1: General information

| | |
|---|---|
| Applicant | Kemira Chemicals, Inc. |
| Facility Name and Address | Kemira Chemicals, Inc. 1150 South 35 th Street Washougal, Washington 98671 |
| Type of Facility: | Producer of chemicals for the pulp and paper, investment casting and electronics industries |
| Standard Industrial Classification (SIC) Codes(s) | 2899 2819 |
| Product Types | Defoamers, surface additives, felt washer, brightness enhancers, sodium aluminates, deinkers, non-skids, colloidal silicas, miscellaneous |
| Facility Discharge Location | Latitude: 45° 33' 56" N Longitude: 122° 19' 57" W |
| Receiving Water: | Outfall 001: Columbia River through the City of Washougal Publicly Owned Treatment Works (POTW) |
| Water Body I.D. No.: | Columbia River: NN57SG |

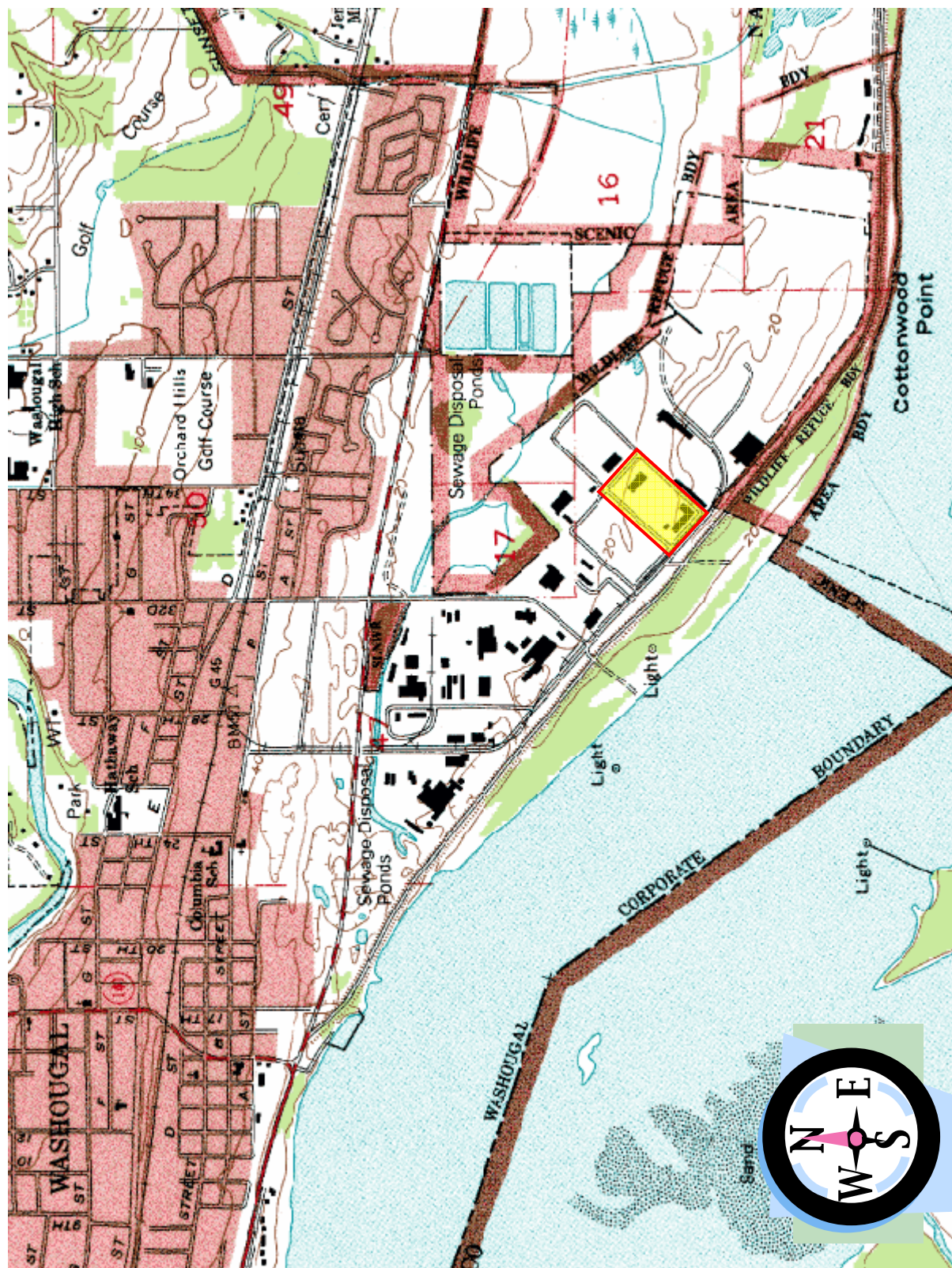
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Table 1: General information

| | |
|----------------------|--|
| Contact at Facility | Name: Brad K. Stephens Telephone #: (360) 835-8725 |
| Responsible Official | Name: Brad Stephens Title: Operations Manager Address: 1150 South 35 th Street Washougal, Washington 98671 Telephone #: (360) 835-8725 FAX #: (360) 835-8729 |

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Figure 1: Kemira vicinity map



BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Kemira Chemicals, Inc. (Kemira; formerly Vinings Industries, Inc. of Kennesaw, Georgia) produces specialty chemicals for the pulp and paper, investment casting and electronics industries. Standard Industrial Codes for the activities are 2819 and 2899. Three separate production units are involved, three of which generate wastewaters. Non-contact cooling water is also generated at the facility. The non-contact cooling water is discharged to the Columbia River through a ditch and the Gibbons Creek. Kemira plans to discontinue the discharge by October 1, 2007.

According to 40 Code of Federal Regulations (CFR) 403.3 Kemira is a *Significant Industrial User* because:

- It is a subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Part 455; and
- It discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, non-contact cooling and boiler blowdown wastewater).

HISTORY

The Washougal plant began operation in 1989. Kemira had expanded several times until the organics process was recently discontinued. After the process was discontinued Kemira changed the workforce from 45 employees to 22 employees and operations from seven days a week to five days a week. Kemira continues to operate 24-hours a day.

INDUSTRIAL PROCESSES

The following are industrial processes at the facility:

1. Paper plant process

The paper plant produces a variety of cold and hot blends. These consist of defoamers, felt washers, deinkers and sodium aluminate ($\text{Na}_2\text{Al}_2\text{O}_4$). Between batches of products, mix vessels and some transfer lines are rinsed out to ensure cleanliness for the next batch. Wastewater is treated and discharged to the POTW.

2. Silica I process

Ion exchange resin beads are used to strip sodium off of sodium silicate, leaving just silica behind. The silica is further processed into a finished product. The resin beads stay in the reactors, but must be regenerated with dilute sulfuric acid between reactions. A dilute solution of sodium sulfate and excess sulfuric acid is pH neutralized and discharged to the POTW. In addition, rainwater from about 8,000 square feet of tank farm is collected and sent to this same system.

3. Silica II process

Ion exchange resin beads are used to strip sodium off of sodium silicate, leaving just silica behind. The silica is further processed into a finished product. The resin beads stay in the

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reactors, but must be regenerated with dilute sulfuric acid between reactions. A dilute solution of sodium sulfate and excess sulfuric acid is pH neutralized and discharged to the POTW.

Raw materials:

The raw materials used in the manufacturing processes with wastewater discharges according to the application, are listed in Table 2.

Table 2: Raw materials used in the manufacturing processes

| Material | Amount, pounds per year |
|--------------------------------|-------------------------|
| Acids | 2,135,000 |
| Bases | 10,570,000 |
| Fatty Alcohols | 680,000 |
| Surfactants | 2,100,000 |
| Sodium and potassium silicates | 10,800,000 |
| Misc. | 2,070,000 |
| Solvents | 32,500 |
| Oil-based defoamers | 87,250 |
| Biocides | 16,000 |
| Chelants | 2,000,000 |
| Glycerine | 120,000 |
| Hydrate | 1,400,000 |
| Polymers | 260,000 |

Production Processes:

The products are made by blending the particular ingredients for each in batch processes. The addition of heat and the adjustment of pH are necessary in some of the production processes.

Products:

The 2001 annualized production by product type was estimated in the application as follows in Table 3. Description of products follows.

Table 3: 2001 annualized production

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| Product Type | Amount, pounds per year |
|----------------------|--------------------------------|
| Defoamers | 6,800,000 |
| Surface additives | 800,000 |
| Felt washers | 2,100,000 |
| Brightness enhancers | 2,100,000 |
| Sodium aluminates | 2,500,000 |
| Deinkers | 1,900,000 |
| Non-skids | 2,300,000 |
| Colloidal silicas | 8,300,000 |
| Miscellaneous | 600,000 |

Kemira formulates Fennosan Q-10 by simple blending. The product is registered as a pesticide. It is used as a cooling water biocide. Fennosan Q-10 is the only manufactured pesticide at Washougal. Several others are stored here, but not repacked.

Defoamers (made up of soap, fatty alcohols and coconut oil) are primarily used in pulp and paper processes to knock down foam so that pumps and equipment function properly.

Felt washers (made up of caustic soda, surfactant and citrus oil) are used in the papermaking industry to extend the felt life in paper machines by removing fouling contaminants from the felt to restore some of its effectiveness.

Brightness enhancers (made up of chelants, magnesium chloride and caustic soda) are used to aid in brightening white paper (in lieu of chlorine or titanium dioxide).

Sodium aluminate is used as pitch-control additives in paper-making. It helps precipitate the sap globules, which would otherwise impact paper quality.

De-inkers (made up of fatty alcohols and organic solvents) are needed to remove ink from the ever-increasing amount of recycled paper used in paper-making.

Non-skids (made up of colloidal silica, glycerine, diethylene glycol and chelants) add friction to paper made from recycled material, which tends to be more slippery because of the shorter fiber length of recycle pulp.

Colloidal silicas (sodium silica) have many uses. Those made here feed into the non-skids and are used in the silicon wafer industry for polishing.

TREATMENT PROCESSES

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Wastewater treatment processes can be broken into four segments:

1. Paper plant solids removal, with clarification and filter pressing

Rinses from the paper plant are collected in a dead end sump immediately adjacent to the collection tanks. Some waste from the sumps in Silica I and Silica II are also added to this sump. Once collected, the wastewater is moved to a clarifier, where it is treated with coagulants. The pH is adjusted, then the material is allowed to settle with sludge forming. Once formed, the supernatant above the sludge is drawn off to the POTW. The remaining sludge is filter pressed, with the filtrate going to the POTW and the remaining solids going to landfill.

2. Silica I neutralization

Generally dilute sodium hydroxide, but sometimes dilute sulfuric acid, is used to adjust the pH in the neutralization tank. This occurs in a batch fashion. Data is recorded for each discharge on a log sheet. After neutralization wastewater is discharge to the POTW

3. Silica II neutralization

Generally dilute sodium hydroxide, but sometimes dilute sulfuric acid, is used to adjust the pH in the neutralization tank. This occurs in a batch fashion. Data is recorded for each discharge on a log sheet. After neutralization wastewater is discharge to the POTW

Non-contact cooling water generated from Silica II and sizing processes is not treated (cooled) before being discharged to the Columbia River though a ditch and Gibbons Creek. Kemira plans to discontinue the discharge by October 1, 2007.

The wastewater flow diagrams are in the permit application.

PERMIT STATUS

A permit for this facility was issued on July 28, 1997. The permit placed effluent limitations on the following parameters:

1. Flow
2. Ph
3. Oil and Grease, Total
4. TSS [total suspended solids]

A state waste discharge application for permit renewal was submitted to the Department on December 26, 2001, and accepted by the Department on February 6, 2002.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on June 15, 2006.

Table 4 provides summary of compliance with the permit.

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Table 4 Summary of compliance

| Date | Parameter/requirement | Permit limit/requirement | Sample measurement/violation |
|----------------|-----------------------------------|---------------------------------|------------------------------|
| December 2005 | TSS | Report | Not reported |
| February 2005 | Discharge monitoring report (DMR) | Submit by March 15, 2005 | March 30, 2005 |
| September 2004 | TSS | 300 milligrams per liter (mg/L) | 430 mg/L |
| October 2002 | TSS | 300 mg/L | 690 mg/L |
| May 2002 | TSS | 300 mg/L | 370 mg/L |
| December 2001 | TSS | 300 mg/L | 360 mg/L |
| March 2001 | TSS | 300 mg/L | 800 mg/L |
| February 2001 | TSS | 300 mg/L | 740 mg/L |
| April 2000 | TSS | 300 mg/L | 340 mg/L |
| Unspecified | Priority pollutants scan | Submit once per permit cycle | Not submitted |

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge to the POTW is characterized for the parameters reported monthly on DMRs and graph in Figure 2. More parameters are listed in the application.

Figure 2 Wastewater characterization; parameters of concern—Outfall 001

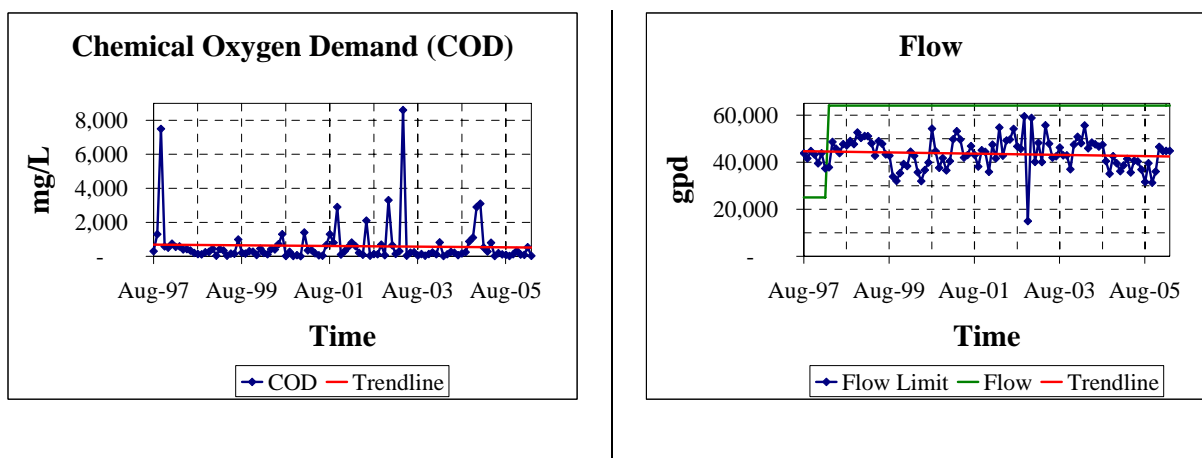
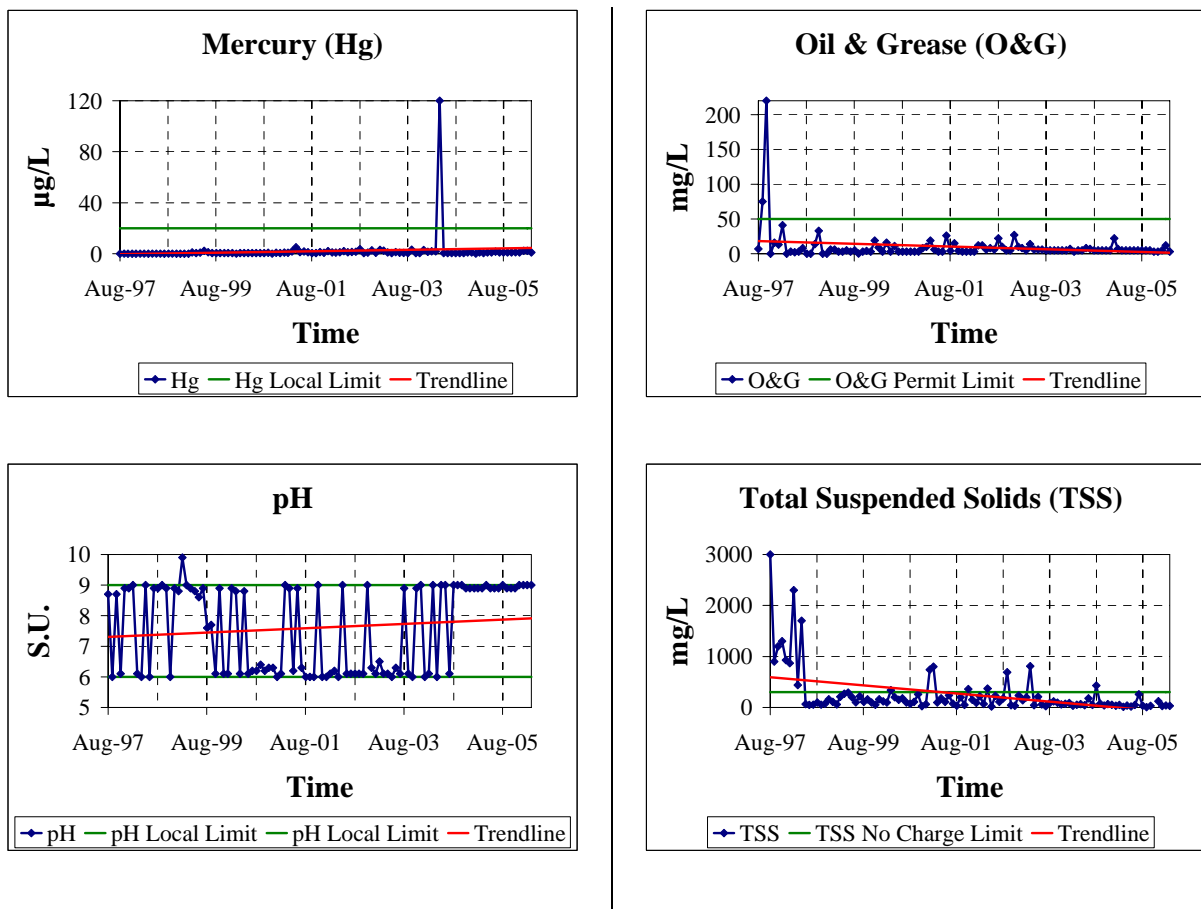


Figure 2 Wastewater characterization; parameters of concern—Outfall 001



Samples collected at the paper plant, on November 21, 2001, measured BOD_5 at 340 mg/L . That is above the local limit for BOD_5 of 300 mg/L .

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The minimum requirements to demonstrate compliance with the AKART standard and specific design criteria for this facility were determined in the fact sheet that accompanied the permit issued on July 28, 1997.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

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All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical limitations for the Fennosan Q-10 formulation are found under 40 CFR Part 455, "There shall be no discharge of process wastewater pollutants."

The following permit limitations are necessary to satisfy the requirement for AKART based on July 28, 1997 fact sheet:

| EFFLUENT LIMITATIONS: OUTFALL # 001 | |
|---|----------------------------------|
| Parameter | Maximum Daily^a |
| Total Suspended Solids (TSS) | 300 milligrams per liter (mg/L) |
| pH | Within the range 6.0 to 9.0 |
| Oil and grease (O&G); total of petroleum and vegetable based | 50 mg/L |
| ^a The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, except pH, the daily discharge is the average measurement of the pollutant over the day. | |

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect the City of Washougal POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits (**Table 5**) established by the City of Washougal POTW and codified in ordinance.

Table 5: City of Washougal POTW local limits

| Parameter | Units | Limits |
|---|-----------------------------|------------------|
| Total Suspended Solids (TSS) | Milligrams per liter (mg/L) | 300 ^a |
| 5-day Biochemical Oxygen Demand (BOD ₅) | mg/L | 300 ^b |
| pH | standard units | 6.0-9.0 |
| Arsenic | mg/L | 0.08 |
| Cadmium | mg/L | 0.05 |
| Chromium | mg/L | 1.3 |
| Copper | mg/L | 1.5 |
| Lead | mg/L | 0.4 |

Table 5: City of Washougal POTW local limits

| Parameter | Units | Limits |
|--|-------|--------|
| Mercury | mg/L | 0.02 |
| Molybdenum | mg/L | 0.15 |
| Nickel | mg/L | 0.95 |
| Selenium | mg/L | 0.07 |
| Silver | mg/L | 0.4 |
| Zinc | mg/L | 3.0 |
| Oil and grease (O&G), total of petroleum and vegetable based | mg/L | 100 |
| ^a Kemira may exceed the TSS limit if an agreement with the city of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department before the limit is exceeded. | | |
| ^b Kemira may exceed the BOD ₅ limit if an agreement with the city of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department before the limit is exceeded. | | |

Applicable limits for this discharge are listed in **Table 6**. They do not include metal limits except a limit for mercury. Metals in the discharge are not detected or detected well below local limits. In May 2004 Kemira reported mercury concentration of 0.120 mg/L in the discharge. The mercury concentration was six times higher than the local limit; therefore, this permit limits mercury discharge.

Further, the applicable local limits do not include the O&G limit since a stringent limit of 50 mg/L is required by AKART.

Table 6: Applicable City of Washougal POTW local limits—Outfall 001

| Parameter | Units | Limits |
|--|-----------------------------|------------------|
| Total Suspended Solids (TSS) | Milligrams per liter (mg/L) | 300 ^a |
| 5-day Biochemical Oxygen Demand (BOD ₅) | mg/L | 300 ^b |
| pH | standard units | 6.0-9.0 |
| Mercury | mg/L | 0.02 |
| ^a Kemira may exceed the TSS limit if an agreement with the City of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department before the limit is exceeded. | | |
| ^b Kemira may exceed the BOD ₅ limit if an agreement with the City of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department before the limit is exceeded. | | |

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COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED JULY 28, 1997

| EFFLUENT LIMITATIONS: OUTFALL # 001 | | |
|---|----------------------------------|----------------------------------|
| Parameter | Existing Limit | Proposed limit |
| | Maximum Daily^a | Maximum Daily^a |
| Flow | 64,000 gpd | 148,000 gpd |
| 5-day Biochemical Oxygen Demand (BOD ₅) | None | 300 ^b mg/L |
| Total Suspended Solids (TSS) | 300 mg/L | 300 ^c mg/L |
| pH | Within the range 6.0 to 9.0 | Within the range 6.0 to 9.0 |
| Mercury (Hg), Total | None | 0.02 mg/L |
| Oil and grease (O&G); total | 50 mg/L | 50 mg/L |
| ^a The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, except pH the daily discharge is the average measurement of the pollutant over the day | | |
| ^b Kemira may exceed the BOD5 limit if an agreement with the city of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department of before the limit is exceeded. | | |
| ^c Kemira may exceed the TSS limit if an agreement with the city of Washougal is reached to exceed the limit. A copy of the agreement shall be sent to the Department before the limit is exceeded. | | |

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Monitoring for priority pollutants and Fennosan Q-10 is being required to further characterize the effluent. These pollutants could have a significant impact on the receiving POTW.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)).

OPERATIONS AND MAINTENANCE

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The proposed permit contains condition S5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment. The proposed permit requires submission of an updated O&M manual for the entire wastewater system.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1. requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2. requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3. specifies conditions for modifying, suspending or terminating the permit. Condition G4. requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5. requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6. prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7. relate to permit renewal and transfer. Condition G8. requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G9. prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G10. requires the payment of permit fees. Condition G11. describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a

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local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for 1.5 years.

REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations(<http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information
(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on August 14, 2005 and August 21, 2005 in The Columbian to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on (date) in (name of publication) to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator
Department of Ecology
Southwest Region Office
P.O. Box 47775
Olympia, Washington 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the 30 day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least 30 days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within 30 days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6288, or by writing to the address listed above.

This permit was written by Jacek Anuszewski, P.E.

APPENDIX B—GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring --Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

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Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7.0 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 percent of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

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- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

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Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

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APPENDIX C—RESPONSE TO ENTITY COMMENTS

On July 14, 2006, the following entity review comments (*in italics*) were received by email from Brad Stephens, Operations Manager, Washougal Plant, Kemira, Pulp & Paper Chemicals. The Department can accept only comments regarding factual errors during the entity review period; therefore only factual comments are answered. Also, based on the comments, the Department makes permit language clarifications where necessary. All unanswered comments must be resubmitted during the public comment period if the Department response is desired.

A letter has been sent to Ecology commenting on the factual portions of our draft permit ST 6164. Below are comments on the permit requirements and other items. This email is also enclosed as an attachment to the letter.

Kemira comments to ST 6164:

Permit

Section S1.

In the Effluent Limitations table, BOD is listed. We have been monitoring COD for many years. As indicated in the 2003 draft permit, COD was to be dropped from the permit. Kemira proposes that BOD now be dropped from this permit.

In the Effluent Limitations table, mercury is listed. In a letter dated 2/10/99 from Ecology, it is stated ‘If the data supports it, monitoring for mercury will be removed from the permit when it is modified. . .’ Kemira has gone nine years with only a single result above the 0.02 mg/l limit. In fact, all but this single result have been well below 0.02 mg/l. Kemira believes that the data clearly illustrates we do not have a mercury problem and that this monitoring parameter should be removed from monthly monitoring. Mercury is on the Pollutants scan, so any issues would be seen during this testing.

In the Effluent Limitations table, TSS is listed in note ‘b’ as potentially being able to be exceeded pending an agreement with the City of Washougal. A letter was sent to the City on 7/12/06 explaining our proposal. If an agreement with the City is reached after permit issuance, Kemira would like to be able to amend the permit accordingly.

The Department: Comment concerning Section S1 is not regarding a factual error.

Section S2.

In the monitoring requirements table, three types of samples are illustrated. Paragraph C states that flow measurement shall meet certain practices. It is not specified that an actual instrument be installed. Can we continue with our current protocol of documenting every batch discharge for flow and summarizing this data onto the DMR? Same for pH? For the 24 hour composite sample, it is not stated how this is to be done. As mentioned elsewhere, we don’t understand how this can be done by an instrument in an intermittent, batch process. Kemira would prefer to continue with our manually-made composite samples. For the grab samples, these will not be representative of a discharge, other than a single batch, from one area (Paper or Silica I or Silica II). A better sample would be to use the 24 hour composite, which would capture several batches from all the site’s sources.

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In the monitoring requirements table, Priority Pollutants are listed to be tested annually. Our current permit requirement is once/five years for testing. Kemira proposes this testing be done bi-annually.

In the monitoring requirements table, Fennosan Q-10 is listed. As mentioned elsewhere, Kemira is not aware of any wastewater test that would determine the concentration of the Q-10. What method shall be used? Detection level? The Effluent Limitations table indicates 'no discharge', which we will control administratively and believe voids the need for testing. The procedure can be added to the O&M manual or the spill plan.

The Department: Comment concerning Section S2 is not regarding a factual error; however, the Department recognizes lack of a good analytical method for Fennosan Q-10. Instead of monitoring for Fennosan Q-10 the Department allows the Permittee to make the following certification as a signed attachment to the monthly discharge monitoring report (DMR):

"Based on my inquiry of the person or persons directly responsible for managing compliance with the Fennosan Q-10 permit limit of 'no discharge', I certify that, to the best of my knowledge and belief, no discharge of Fennosan Q-10 into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the procedure of a no discharge of Fennosan Q-10 included in the Operation and Maintenance Manual."

Section S4.

As discussed elsewhere, Kemira does not have a standalone O&M manual. Our maintenance procedures, work orders, operating instructions, etc., are contained in various manuals and software systems. We would prefer to provide a reference to the other locations, rather than create something redundant.

The Department: The Department clarifies permit language to allow references in the O&M Manual to other manuals or software systems, rather than creating something redundant. The O&M Manual shall include a detailed description of flow measurement and sampling procedure(s) and a procedure for a no discharge of Fennosan Q-10.

Section S5.

Paragraph C, 1a, indicates no non-contact cooling water in significant volumes unless approved. As documented elsewhere, Kemira understands the max non-contact cooling water discharge to be 10,000 gpd.

Paragraph C, 1b, indicates no storm water unless approved. As shown in the 2001 application's Water Balance Table, 1,586 gpd average of rainwater is discharged through the Silica I neutralization process. See also the Fact Sheet, page 4, section 2.

The Department: Drafting the permit the Department intended to authorize listed above discharges; therefore, Special Condition S1.A. of the permit is modified to clarify that these discharges are authorized.

Section S8.

It is stated that Kemira must reapply for permit renewal by 12/31/07. In February of 1998, Kemira (Vinings at the time) completed a permit renewal certification. Ecology states in the certification that for

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those permittees receiving a permit for less than the five-year term, the simpler certification is to be used in lieu of the lengthy application. Please confirm this will be our situation for next year.

The Department: The simple certification will be requested next year if there is not a change to Kemira's facility in Washougal.

Fact Sheet

Various pages.

References are made throughout the fact sheet regarding the organics plant. This is confusing, as some chemicals are still listed, some listed as obsolete, etc. Since the organics plant is out of service and all chemicals are removed from it, why not eliminate all reference to organics? We can red-line the fact sheet to this effect if it would help.

The Department: Please red-line the fact sheet to eliminate all reference to organics. Submit the red-lined fact sheet as soon as possible.

Page 10.

The first sentence indicates the BOD was exceeded in the paper plant. What was the date of the sample? Does this need to be included here since the parameter is not part of our existing permit?

The Department: The date of the sample was November 21, 2001. Rest of the above comment is not regarding a factual error.

Page 12.

In the first paragraph, it is stated that mercury was 6 times above the local limit in May 2004. This was the only time in nine years that Kemira exceeded the limit. As indicated above in the comment for section S1., Kemira believes the mercury requirement should be eliminated. (Same comment for mercury being listed in Table 6.).

The Department: The comment is not regarding a factual error.

Page 13.

As indicated above, Kemira is requesting mercury be eliminated from the Effluent Limitations table.

The Department: The above request is not regarding a factual error.

As indicated previously, Kemira is requesting an amendment to the final permit should an agreement be reached with the City after permit issuance.

The Department: The above request is not regarding a factual error.

As indicated previously, Kemira has no wastewater method for Fennosan Q-10 and is requesting that this pollutant be controlled administratively.

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The Department: The above request is not regarding a factual error. For further explanation see the Department response to a comment regarding Section 2 of the permit.

As indicated previously, Kemira is proposing that the O&M manual be references to various programs on-site.

The Department: See the Department response to a comment regarding Section 4 of the permit.

DMR.

Update to reflect any accepted modifications to the draft.

The Department: The DMR will be updated according to any modifications to the draft permit.

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APPENDIX D—RESPONSE TO PUBLIC COMMENTS

On July 14, 2006, the following entity review comments (*in italics*) were received by email from Brad Stephens, Operations Manager, Washougal Plant, Kemira, Pulp & Paper Chemicals. The Department can accept only comments regarding factual errors during the entity review period; therefore only factual comments are answered. Also, based on the comments, the Department makes permit language clarifications where necessary. All unanswered comments must be resubmitted during the public comment period if the Department response is desired.

A letter has been sent to Ecology commenting on the factual portions of our draft permit ST 6164. Below are comments on the permit requirements and other items. This email is also enclosed as an attachment to the letter.

Kemira comments to ST 6164:

Permit

Section S1.

In the Effluent Limitations table, BOD is listed. We have been monitoring COD for many years. As indicated in the 2003 draft permit, COD was to be dropped from the permit. Kemira proposes that BOD now be dropped from this permit.

In the Effluent Limitations table, mercury is listed. In a letter dated 2/10/99 from Ecology, it is stated ‘If the data supports it, monitoring for mercury will be removed from the permit when it is modified. . .’ Kemira has gone nine years with only a single result above the 0.02 mg/l limit. In fact, all but this single result have been well below 0.02 mg/l. Kemira believes that the data clearly illustrates we do not have a mercury problem and that this monitoring parameter should be removed from monthly monitoring. Mercury is on the Pollutants scan, so any issues would be seen during this testing.

In the Effluent Limitations table, TSS is listed in note ‘b’ as potentially being able to be exceeded pending an agreement with the City of Washougal. A letter was sent to the City on 7/12/06 explaining our proposal. If an agreement with the City is reached after permit issuance, Kemira would like to be able to amend the permit accordingly.

The Department: Comment concerning Section S1 is not regarding a factual error.

Section S2.

In the monitoring requirements table, three types of samples are illustrated. Paragraph C states that flow measurement shall meet certain practices. It is not specified that an actual instrument be installed. Can we continue with our current protocol of documenting every batch discharge for flow and summarizing this data onto the DMR? Same for pH? For the 24 hour composite sample, it is not stated how this is to be done. As mentioned elsewhere, we don’t understand how this can be done by an instrument in an intermittent, batch process. Kemira would prefer to continue with our manually-made composite samples. For the grab samples, these will not be representative of a discharge, other than a single batch, from one area (Paper or Silica I or Silica II). A better sample would be to use the 24 hour composite, which would capture several batches from all the site’s sources.

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In the monitoring requirements table, Priority Pollutants are listed to be tested annually. Our current permit requirement is once/five years for testing. Kemira proposes this testing be done bi-annually.

In the monitoring requirements table, Fennosan Q-10 is listed. As mentioned elsewhere, Kemira is not aware of any wastewater test that would determine the concentration of the Q-10. What method shall be used? Detection level? The Effluent Limitations table indicates 'no discharge', which we will control administratively and believe voids the need for testing. The procedure can be added to the O&M manual or the spill plan.

The Department: Comment concerning Section S2 is not regarding a factual error; however, the Department recognizes lack of a good analytical method for Fennosan Q-10. Instead of monitoring for Fennosan Q-10 the Department allows the Permittee to make the following certification as a signed attachment to the monthly discharge monitoring report (DMR):

"Based on my inquiry of the person or persons directly responsible for managing compliance with the Fennosan Q-10 permit limit of 'no discharge', I certify that, to the best of my knowledge and belief, no discharge of Fennosan Q-10 into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the procedure of a no discharge of Fennosan Q-10 included in the Operation and Maintenance Manual."

Section S4.

As discussed elsewhere, Kemira does not have a standalone O&M manual. Our maintenance procedures, work orders, operating instructions, etc., are contained in various manuals and software systems. We would prefer to provide a reference to the other locations, rather than create something redundant.

The Department: The Department clarifies permit language to allow references in the O&M Manual to other manuals or software systems, rather than creating something redundant. The O&M Manual shall include a detailed description of flow measurement and sampling procedure(s) and a procedure for a no discharge of Fennosan Q-10.

Section S5.

Paragraph C, 1a, indicates no non-contact cooling water in significant volumes unless approved. As documented elsewhere, Kemira understands the max non-contact cooling water discharge to be 10,000 gpd.

Paragraph C, 1b, indicates no storm water unless approved. As shown in the 2001 application's Water Balance Table, 1,586 gpd average of rainwater is discharged through the Silica I neutralization process. See also the Fact Sheet, page 4, section 2.

The Department: Drafting the permit the Department intended to authorize listed above discharges; therefore, Special Condition S1.A. of the permit is modified to clarify that these discharges are authorized.

Section S8.

It is stated that Kemira must reapply for permit renewal by 12/31/07. In February of 1998, Kemira (Vinings at the time) completed a permit renewal certification. Ecology states in the certification that for

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those permittees receiving a permit for less than the five-year term, the simpler certification is to be used in lieu of the lengthy application. Please confirm this will be our situation for next year.

The Department: The simple certification will be requested next year if there is not a change to Kemira's facility in Washougal.

Fact Sheet

Various pages.

References are made throughout the fact sheet regarding the organics plant. This is confusing, as some chemicals are still listed, some listed as obsolete, etc. Since the organics plant is out of service and all chemicals are removed from it, why not eliminate all reference to organics? We can red-line the fact sheet to this effect if it would help.

The Department: Please red-line the fact sheet to eliminate all reference to organics. Submit the red-lined fact sheet as soon as possible.

Page 10.

The first sentence indicates the BOD was exceeded in the paper plant. What was the date of the sample? Does this need to be included here since the parameter is not part of our existing permit?

The Department: The date of the sample was November 21, 2001. Rest of the above comment is not regarding a factual error.

Page 12.

In the first paragraph, it is stated that mercury was 6 times above the local limit in May 2004. This was the only time in nine years that Kemira exceeded the limit. As indicated above in the comment for section S1., Kemira believes the mercury requirement should be eliminated. (Same comment for mercury being listed in Table 6.).

The Department: The comment is not regarding a factual error.

Page 13.

As indicated above, Kemira is requesting mercury be eliminated from the Effluent Limitations table.

The Department: The above request is not regarding a factual error.

As indicated previously, Kemira is requesting an amendment to the final permit should an agreement be reached with the City after permit issuance.

The Department: The above request is not regarding a factual error.

As indicated previously, Kemira has no wastewater method for Fennosan Q-10 and is requesting that this pollutant be controlled administratively.

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The Department: The above request is not regarding a factual error. For further explanation see the Department response to a comment regarding Section 2 of the permit.

As indicated previously, Kemira is proposing that the O&M manual be references to various programs on-site.

The Department: See the Department response to a comment regarding Section 4 of the permit.

DMR.

Update to reflect any accepted modifications to the draft.

The Department: The DMR will be updated according to any modifications to the draft permit.

RESPONSE TO PUBLIC COMMENTS

On August 8, 2006, the following public review comments (*in italics*) were received by email from Brad Stephens, Operations Manager, Washougal Plant, Kemira, Pulp & Paper Chemicals.

Below are comments pertaining to Kemira's draft permit, ST-6164:

Permit, Page 5

- *Wastewater monitoring table. Kemira proposes that Flow and pH be measured as is currently done by recording volume and adjusted pH for every batch discharge and summarizing this data onto the DMR. Operations procedures can be documented to elaborate on the existing logsheets, if needed. Section C would need updating accordingly.*

The Department: The Department approves Kemira's proposal to measure flow and pH as is currently done by recording volume and adjusted pH for every batch discharge and summarizing this data onto the DMR. The operation procedures should be documented in the Operation and Maintenance (O&M) Manual due by June 30, 2007. Section C is part of a standard permit and does not need to be updated at this time.

Permit, Page 5

Wastewater monitoring table. Kemira proposes that all parameters listed needing analytical testing be composed of a 24 hour weighted composite sample as is currently done. Samples from the three sources on the site would be taken during the designated 24 hour period, and mixed together manually into a composite weighted sample, based on [volume of each discharge]:[volume of total site 24 hour discharge]. A procedure can document the technique, as needed. Having an automated device accomplish the sampling in an intermittent, variable flow environment, will be very difficult. Additionally, a grab sample (listed for O&G and priority pollutants) will not represent the three intermittent discharges from the site (Paper, Silica I, Silica II).

The Department: The Department approves Kemira's proposal that BOD, TSS, mercury and priority pollutants be composed of a 24 hour weighted composite sample as is currently done. However, an Oil and Grease (O&G) sampling procedure requires a grab sample. Therefore, grab samples should be taken for O&G at every outfall and send to a lab for separate analyses. The flow weighted O&G should be

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reported onto the DMR. All sampling procedures should be documented in the O&M Manual due by June 30, 2007.

Permit, Page 5

Wastewater monitoring table. Kemira proposes that priority pollutants be monitored on a bi-annual basis. This is significantly more frequently than our current permit requirement of once every five years.

The Department: The Department approves Kemira's proposal except that the Oil and Grease (O&G) sampling procedure requires a grab sample. Therefore, grab samples should be taken at each outfall and send to a lab for separate analysis. The flow weighted O&G should be reported onto the DMR. All sampling procedures should be documented in the O&M Manual due by June 30, 2007.

Permit, Page 5

*Below is a summary of the proposed changes to the monitoring table (changes to the Draft in **bold**):*

| <i>Parameter</i> | <i>Sampling frequency</i> | <i>Sample type</i> |
|----------------------------|---------------------------|-----------------------------|
| <i>Flow</i> | Every batch | Manually recorded |
| <i>BOD</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>TSS</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>pH</i> | Every batch | Manually recorded |
| <i>Hg</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>O&G</i> | <i>Once/month</i> | 24 hr weighted comp. |
| <i>Priority pollutants</i> | Bi-annual in Jan. | 24 hr weighted comp. |
| <i>Fennosan Q-10</i> | <i>b</i> | <i>n/a</i> |

The Department: The Department approves Kemira's proposal except that the items in bold face font are altered by the Department.

| <i>Parameter</i> | <i>Sampling frequency</i> | <i>Sample type</i> |
|----------------------------|-----------------------------------|--------------------------------------|
| <i>Flow</i> | <i>Every batch</i> | Batch measurement |
| <i>BOD</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>TSS</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>pH</i> | <i>Every batch</i> | Metered |
| <i>Hg</i> | <i>Once/month</i> | <i>24 hr weighted comp.</i> |
| <i>O&G</i> | <i>Once/month</i> | Grab at each internal outfall |
| <i>Priority pollutants</i> | Bi-annual in Jan. and July | <i>24 hr weighted comp.</i> |
| <i>Fennosan Q-10</i> | <i>b</i> | <i>n/a</i> |

Fact Sheet, Page 12

The third paragraph states ' . . . Fennosan Q-10 is being required to further characterize the effluent.' Kemira requests the comment pertaining to Fennosan Q-10 be removed as the permit clarifies that Q-10 will be a no discharge, with documentation supporting that on the DMR and elsewhere.

The Department: The Department clarifies that monitoring for Fennosan Q-10 is not required by this permit; however, the fact sheet can not be altered as a result of public comments.

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DMR

Kemira requests that 'frequency of analysis' and 'sample types' be adjusted to reflect techniques illustrated in the permit.

The Department: The DMR will be adjusted accordingly.

On August 18, 2006, public review comments (*in italics*) were received from Lauren Goldberg Columbia Riverkeeper. The Department lists and answers all questions included in the comments.

Question 1: *What is the temperature of untreated noncontact cooling water entering the Columbia River and Gibbons Creek?*

Ecology response to question 1:

This permit does not authorize a discharge of non-contact cooling water to the Columbia River and Gibbons Creek. It authorizes discharge of 10,000 gpd of non-contact cooling water to the city of Washougal POTW. Temperature of the discharge meets requirements of this permit, WAC 173-216, 40 CFR 403, and Section 307 of the Clean Water Act.

Question 2: *Why is Kemira permitted to discharge water that is not cooled at a temperature limited waterbody?*

Ecology response to question 2:

See the answer to ***Question 1***.

Question 3: *Is DOE requiring this discharge cease by October 2007? If so, where does this condition appear in the permit?*

Ecology response to question 3:

The Department is not requiring this discharge cease by October 2007; therefore, this condition does not appear in the permit.

Question 4: *In the context of technologies for this wastewater treatment plant, are there known, available, and reasonable treatment methods that have been developed in the last ten years? If so, on what basis is DOE relying on AKART information from 1997?*

Ecology response to question 4:

AKART in question is for pH, TSS and O&G. The AKART for pH and TSS is at the level of corresponding local limits and the AKART for O&G is lower than the local limit. The Department believes it is not necessary to make the AKART more stringent at this time especially since the POTW is designed to treat for said pollutants.

Question 5: *Has DOE approved Kermia's discharge of storm water? If so, where is the approval contained in the permit and what conditions are attached to the discharge?*

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Ecology response to question 5:

The Department has approved Kemira's discharge of stormwater from Silica I Process tank farm. The approval and conditions are in the permit's Special Condition 1.

Question 6: *Is the rainwater discharge a component of the total effluent discharge 148,000 gpd allowed under the permit or this discharge in addition to the 148,000 gpd?*

Ecology response to question 6:

The rainwater discharge is a component of the total effluent discharge of 148,000 gpd allowed under the permit.

Question 7: *What methods or technologies can Kemira apply to bring the plant into compliance with the TSS permit parameter? Please explain on what grounds DOE is not requiring the application of technologies to bring Kemira into compliance with the TSS limit in the permit.*

Ecology response to question 7:

The POTW is design to remove TSS. Kemira is working on reaching an agreement with the POTW to exceed the TSS limit. When the agreement is reached the Department intends to modify the permit accordingly. If the agreement is not reached and Kemira keeps violating the TSS limit the Department plans to reevaluate the TSS removal technology applied at the facility.

Question 8: *In the absence of a priority pollutant scan, what data is DOE relying on in determining which priority pollutants should have effluent limitations? Please explain.*

Ecology response to question 8:

The priority pollutant scan is not required with an Application for a Wastewater Discharge Permit for Discharge of Industrial Wastewater to a POTW. The Department relies on information provided with the application which includes information on priority pollutants. The new permit requires Kemira to monitor for priority pollutants twice a year. If monitoring revealed unacceptable level(s) of particular priority pollutant(s) the Department would consider setting limits for such pollutant(s).

Question 9: *How will a flow increase of 84,000 gpd impact the POTW?*

Ecology response to question 9:

The Department estimates that the flow increase takes approximately 1.6 percent of the POTW designed flow capacity. From September 2005 through July 2006 the POTW was at 62 percent of a designed flow capacity on an average. Therefore, the additional flow would increase the average flow at the plant to 63.6 percent of the designed flow capacity.

Question 10: *Is the new parameter for flow below the maximum designed flow capacity of the plant?*

Ecology Response to question 10:

The Department guesses that the plant means a clarification process treatment plant at Kemira's facility. From May 2006 through August 2006 the plant was at an estimated 40 percent of its capacity. The plant

*FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6164
KEMIRA CHEMICALS, INC.*

processes only a fraction of industrial wastewater discharged from Kemira. The permit requirements would force Kemira to modify the plant and submit an engineering report for the plant modification if the designed capacity of the plant was reached.